

REMARKS

By this amendment, claims 1-13 and 19-29 remain in this application. New claims 30-34 have been added.

Claim 1 was rejected under 35 U.S.C. 102 as anticipated by U.S. Patent No. 5,683,411 (Kavteladze), 5,725,552 (Kotula), 5,746,767 (Smith) and 4,425,908 (Simon). The Examiner in several instances is selecting components of the prior art patents and labeling them as elements of the claims, even if such labeling is not consistent with the specification of those patents. However, to expedite prosecution, for purposes of this response, Applicants have used the Examiner's characterizations. In any event, as demonstrated in the discussion below, even with these characterizations the claims are distinguishable over the cited references.

Turning first to the Kavteladze patent, this patent discloses a filter comprising two coaxial interconnected bodies of revolution defined by wire members 3 forming cells. The Examiner points to wire members 8 as the converging anchoring regions. Kavteladze describes such wire members:

As a special feature the filter may be provided with wire members 8 extending diametrically across the base 5 of one or both of the bodies of revolution 1 and 2 and being secured to one another at the centre of the base to function as extraction members engagable by a hook-shaped trapping wire introduced into the vein by means of a retraction catheter, not shown.(col. 4, lines 34-40)

Claim 1 recites inter alia that the first and second anchoring portions extend integrally from the respective filtering portions and extend axially along a portion of the filter. The wires of Kavteladze, in contrast, are discrete elements of the device. Also, the wires extend radially and do not extend axially along a portion of the length of the filter. Withdrawal of the rejection is respectfully requested.

Turning next to the Kotula patent, the Examiner identifies reference numerals 66 as the anchoring portion and reference numerals 64 as the filtering portions. Kotula, in his specification, explains "the expanded diameter portions 64 include a ridge 66 positioned about midway along their lengths" (col. 10, lines 55-56). It appears that the so-called "filtering" and "anchoring" portions of Kotula are the same since 66 is required to fill the vessel lumen for occluding. In any event, claim 1 as amended, recites that the first and second anchoring portions are axially spaced from the respective filtering portions and that the filtering portions are positioned closer to each other in the axial direction

than the anchoring portions. Since these so called “filtering” and “anchoring” portions of Kotula are axially aligned, for at least this reason claim 1 is not anticipated and the rejection should be withdrawn.

Turning to the Smith patent, the Examiner identifies numerals 22 and 24 as the converging regions of the filter. These hubs contain struts that extend therefrom and terminate in free ends. Claim 1 of the present application recites that the first and second filtering portions are positioned closer to each other in axial direction than the first and second anchoring regions. If the Examiner chooses to identify the hubs as the part of the anchoring portions, then these hubs are not axially spaced from the filtering portions. Further, if these hubs are part of the anchoring portion, then the transverse dimension of the anchoring portion is not greater than the transverse dimension of the filtering portion. Claim 1 also states that an end portion of the anchoring portions spaced from the filtering portion converge to a converging section and the converging sections are adjacent the end portions. The end of the anchoring portions of Smith which have the anchoring members are the end portions spaced from the filtering portions, and these do not converge but rather terminate in free ends. If the Examiner alternatively wishes to identify anchoring members as the anchoring portion, then these are free ends and do not converge. Further, the anchoring portions of Smith do not have segments forming at least one loop. Withdrawal of the rejection of claim 1 is respectfully requested.

With respect to the Simon patent, the Examiner identifies sleeve 14 as one of the converging regions. The Examiner also identifies part of the filter basket as the anchoring portion. With claim 1 now reciting the converging anchoring portions are adjacent the opposing ends of the filter, Simon is deficient since the converging section 14 is located at an intermediate portion. With the converging portions of the filter of the present invention of claim 1 being disposed at the end portions, the disadvantages of free ends are overcome. Moreover, Simon lacks first and second anchoring portions and first and second filtering portions having segments each forming at least one loop as recited in amended claim 1. Therefore, the rejection of claim 1 as anticipated by the Simon patent should be withdrawn.

Independent claim 26 was rejected as anticipated by Kavteladze and by Smith. Claim 26 recites inter alia that the anchoring portion is looped, is formed at the first end and second end, extends in an axial direction from the filter portion, and an end region of each anchoring region which is spaced further axially from the filter portion converges to form a converging section spaced from the filter portion. In Kavteladze, as noted above, the wire members 8 extend radially and not in an axial direction and are not looped. In Smith, as noted above, the converging regions identified by the Examiner are not spaced axially further from the filtering portions, but are spaced closer and are

not located at the end portions of the filter. The non-converging free ends of Smith are further from the filter. Smith also lacks a looped anchoring portion at the first and second end. Thus the rejection of claim 26 should be withdrawn.

Turning now to the rejection of independent claim 9, this claim was rejected as anticipated by U.S. Patent No. 5,755,790 (Chevillon) and by Simon.

Claim 9 recites inter alia a region closer axially to the intermediate portion forms a filter portion, a first region further from the intermediate portion forms a first anchoring portion and a second region further from the intermediate portion forms a second anchoring portion. The claim further recites that regions of the first and second anchoring portions extend radially distally in a first direction and bend back to extend proximally in a second direction. In Chevillon, only one of the anchoring portions has any bent back feature. Chevillon is specifically designed so that only one side of the filter has such anchoring feature since this feature is designed only for permanent implantation. For temporary implantation, only the portion of the filter lacking this feature is utilized (see column 6, lines 30-36).

Similarly, Simon lacks the foregoing features of claim 9. Simon discloses first and second filter baskets 16, 18, only one of which has bent back portions. Basket 18 terminates in free ends. Also Simon lacks first and second anchoring portions spaced further axially from the intermediate portion. Therefore, claim 9 is not anticipated by Simon or Chevillon and withdrawal of the rejection is respectfully requested.

Dependent claims 2-8, 10-13, 20-25, 27-29 and new dependent claims 30-34 depend either directly or indirectly from independent claims 1, 9 or 26 and therefore are believed patentable for at least the same reasons as these independent claims are believed patentable.

With respect to the obviousness rejections of the claims, the Examiner relies on Forber (5,895,410) as the base reference to reject independent claims 1 and 9. Claim 9 was rejected as obvious over Forber, Kotula and Shank. However, Forber is an occlusion device. As explained in the previous response, such occlusion device is the opposite of a filtering device which requires blood flow therethrough. Additionally, the flow of blood in the filter of the present invention helps to dissolve the captured clots; if the blood flow is terminated this advantage will not be present.

There is no teaching or suggestion to modify the Forber device to provide a wire braid structure to function as a filter. Forber is an occlusion device of helically wound or braided wire pattern designed to stop blood flow by initiating thrombus formation. (see column 2, line 20). The

objective and disclosure of Forber is an occlusive device, not a filter.

It is an object of the present invention to provide a vascular occlusion device which can occlude a blood vessel using a single device. (col. 1, lines 54-56).

Forber explains:

Although the primary use of the device 20 is in embolectherapy to occlude a blood vessel, it may be used generally to close other sites in the cardiovascular system such as a septal defect. (see col. 3, lines 35-39).

In the absence of such suggestion, such modification is impermissible hindsight reconstruction. As explained in the MPEP, section 2143.01, “The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggest the desirability of the combination” (citing *In re Mills*, 916 F.2d. 680, 16 USPQ 2d 1430 (Fed. Cir. 1990)). The MPEP continues, “Although a prior art device may be capable of being modified to run the way the apparatus is claimed, there must be a suggestion or motivation in the reference to do so...” In the present combination of references, not only is there no suggestion to combine, but the desirability and motivation is lacking. There is no motivation to modify a occlusion device to allow blood flow as the Examiner suggests.

Second, such modification is against the teachings of Forber. “If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d. 810, 123 USPQ349 (CCPA 1959); MPEP section 2143.01. Such modification suggested by the Examiner would change the teachings of Forber because it would no longer function as an occlusion device.

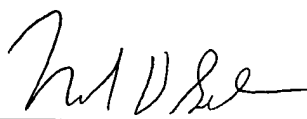
The present invention in marked contrast to Forber is designed to filter blood clots while allowing blood flow through the filter. In fact, blood flow is necessary through the filter to maintain flow through the body, e.g. the heart and lungs. Blood flow is even desirable at the regions of the captured blood clots to help dissolve the particles (see page 2 of Applicants’ specification). This is reflected in claims 1 and 9 which recite a vessel filter having filtering /filter portions to allow continuous blood flow threrethrough while capturing clots.

Applicants respectfully request withdrawal of the obviousness rejection of claims 1 and 9. Claims 2, 7 and 8 depend from claim 1 and claims 11-13, 19 and 23-25 depend from claim 9 and are believed patentable for at least the same reasons as claims 1 and 9.

Applicants respectfully submit that this application is now in condition for allowance. Prompt and favorable reconsideration of the present application is respectfully requested. The Examiner is invited to contact the undersigned should the Examiner believe it would expedite prosecution.

Respectfully submitted,

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